L Number	Hits	Search Text	DB	Time stamp
1	1687567	hbv or (hepatitis b virus)	USPAT	2002/10/11 13:37
2	366451	rtpcr or rt-pcr or (reverse transcrip$8)	USPAT	2002/10/11 13:33
3	46657	(hbv or (hepatitis b virus)) same (rtpcr or rt-pcr or (reverse transcrip$8))	USPAT	2002/10/11 13:34
4	12549	biotin and fluor$9	USPAT	2002/10/11 13:35
6	6068	biotin same fluor$9	USPAT	2002/10/11 13:36
7	21	((hbv or (hepatitis b virus)) same (rtpcr or rt-pcr or (reverse transcrip$8))) same (biotin same fluor$9)	USPAT	2002/10/11 13:36
8	4132	hbv or (hepatitis adj b adj virus)	USPAT	2002/10/11 13:37
9	0	(hbv or (hepatitis adj b adj virus)) same (rtpcr or rt-pcr or (reverse transcrip$8)) same (biotin same fluor$9)	USPAT	2002/10/11 13:37
10	184	((hbv or (hepatitis adj b adj virus)) same (rtpcr or rt-pcr or (reverse transcrip$8))) and (biotin same fluor$9)	USPAT	2002/10/11 13:39
11	14469	(hbv or (hepatitis b virus)) near6 (rtpcr or rt-pcr or (reverse transcrip$8))	USPAT	2002/10/11 13:46
12	18	"5641658"	USPAT	2002/10/11 13:54
13	8099	(solid same solution) same (oligo$9 or primer$2 or prob$3)	USPAT	2002/10/11 13:55
14	11	(solid same solution) same (oligo$9 or primer$2 or prob$3) same (hbv or (hepatitis adj b adj virus))	USPAT	2002/10/11 13:58
15	829	solid same phase same amplification	USPAT	2002/10/11 14:00
16	5	(solid same phase same amplification) same (hbv or (hepatitis adj b adj virus))	USPAT	2002/10/11 13:59
17	91	solid near4 phase near4 amplification	USPAT	2002/10/11 14:00

L9 ANSWER 9 OF 11 MEDLINE
ACCESSION NUMBER: 1998281661 MEDLINE
DOCUMENT NUMBER: 98281661 PubMed ID: 9620351
TITLE: Molecular basis for persistent hepatitis B virus infection in the liver after clearance of serum hepatitis B surface antigen.
AUTHOR: Mason A L; Xu L; Guo L; Kuhns M; Perrillo R P
CORPORATE SOURCE: Section of Gastroenterology and Hepatology, Ochsner Medical Institutions, New Orleans, LA 70121, USA.
SOURCE: HEPATOLOGY, (1998 Jun) 27 (6) 1736-42.
Journal code: 8302946. ISSN: 0270-9139.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199806
ENTRY DATE: Entered STN: 19980713
Last Updated on STN: 19980713
Entered Medline: 19980630

AB Hepatitis B virus (HBV) DNA has been detected by polymerase chain reaction (PCR) in the liver of patients with resolved chronic HBV infection and sustained clearance of hepatitis B surface antigen (HBsAg) from serum. However, it is unknown whether the virus is transcriptionally active at this time or if the covalently closed circular (CCC) replicative intermediate of HBV DNA can still be detected. Therefore, hepatic nucleic acid extracts from seven patients who had cleared serum **HBsAg** were assessed by (PCR) for either **reverse-transcribed** HBV RNA, or an intact direct repeat region of the HBV genome indicative of the CCC replicative intermediate of HBV DNA. HBV transcripts were detected in four of seven patients in the study group, whereas an intact direct repeat region of the HBV genome was detected in three. Evidence for viral transcription and replication was more frequently detected in patients who had recently cleared serum HBsAg, but HBV RNA was also detected in one patient 5 years after HBsAg clearance, and an intact direct repeat region of HBV DNA was detected in another subject at nearly 4 years after resolution of disease. Therefore, hepatic HBV transcription may be associated with replicative intermediates of persistent HBV DNA in patients who have cleared HBsAg from serum, suggesting that, on occasion, HBV may not be in a latent state but undergoing low-level replication.

L9 ANSWER 11 OF 11 MEDLINE
ACCESSION NUMBER: 97098809 MEDLINE
DOCUMENT NUMBER: 97098809 PubMed ID: 8943480
TITLE: Detection of hepatitis B virus DNA and RNA in kidneys of HBV related glomerulonephritis.
AUTHOR: Lai K N; Ho R T; Tam J S; Lai F M
CORPORATE SOURCE: Department of Medicine, Prince of Wales Hospital, Chinese University of Hong Kong, Shatin, Hong Kong.
SOURCE: KIDNEY INTERNATIONAL, (1996 Dec) 50 (6) 1965-77.
Journal code: 0323470. ISSN: 0085-2538.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 199702
ENTRY DATE: Entered STN: 19970313
Last Updated on STN: 19970313
Entered Medline: 19970228

AB Glomerular deposition of hepatitis B virus (HBV) antigens are observed in chronic HBsAg carriers with different glomerulonephritides yet the etiologic role of HBV remains uncertain. We examined the paraffin section of kidney biopsies from 40 chronic HBsAg carriers with membranous nephropathy (MGN), mesangiocapillary glomerulonephritis (MCGN) or IgA nephropathy (IgAN) for HBV DNA and HBV RNA using in situ hybridization (ISH). Glomerular HBV antigens were present in all biopsies by immunofluorescence. HBsAg or HBcAg mRNA was also studied in RNA extracted from frozen renal tissue using a two-step polymerase chain reaction (PCR) following reverse transcription (RT). HBcAg DNA was not easily detected with ISH alone, but was readily found in 31 biopsies (78%) following PCR. HBV DNA was detected mainly in the cytoplasm of proximal tubular epithelia but not in glomerular cells. **HBsAg** and/or HBcAg mRNA were detected by **RT-PCR** in extracted RNA from 13 biopsies (33%). The PCR findings were further confirmed by (a) Southern blot hybridization using a cloned HBV probe and (b) absence of PCR product following treating RNA with RNase or omitting the RT. It is plausible that HBV DNA in renal tubules represents endocytosis of HBV DNA in the urinary filtrate and the HBV RNA extracted from kidney biopsies could derive from infiltrating cells bearing HBV RNA. Hence, ISH with specific HBV core gene RNA probe was performed subsequently. HBcAg RNA, localized in the nuclei and cytoplasm of glomerular and tubular cells, was detected in 56%, 20%, and 36% of renal biopsies in chronic HBsAg carriers with MGN, MCGN, and IgAN, respectively. Our findings indicate the presence of viral transcription in glomerular cells and renal tubular epithelia, supporting an etiological role of HBV in some chronic HBsAg carriers who develop coexisting glomerulonephritides.

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